

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBERT M. SPOTNITZ and JOHN W. VAN ZEE

Appeal No. 2006-3087
Application No. 09/821,553
Technology Center 3600

Decided: February 13, 2007

Before ANITA PELLMAN GROSS, STUART S. LEVY and ROBERT E. NAPPI, *Administrative Patent Judges*.

ROBERT E. NAPPI, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 of the final rejection of claims 1 through 5 and 7 through 12. For the reasons stated *infra* we affirm the Examiner's rejection of these claims.

INVENTION

The invention is directed to a system for designing charge storage devices (e.g. a battery). See pages 1 and 2 of Appellants' specification.

Claim 1 is representative of the invention and reproduced below:

A method for charge storage device (CSD) customer driven charge storage device design comprising the steps of:

providing more than one model of a charge storage device, the model adapted to convert at least one CSD customer inputted requirement selected from the group consisting of energy density, cycle life, rate capability, impedance, temperature range of operation and/or survival, safety requirements, storage life, self-discharge behavior, form factor, and cost into at least one CSD design;

providing an interface, the interface being adapted to pass the CSD customer inputted requirement to the model, the interface being adapted to pass CSD design from the model, and the interface being adapted to hide the model;

wherein the CSD customer addresses the interface with the CSD customer inputted requirement, the interface directs the CSD customer inputted requirement to at least one of the models, the model generates the CSD design that passes through the interface to the CSD customer.

REFERENCES

The reference relied upon by the Examiner is:

Notten	US 6,016,047	Jan. 18, 2000
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REJECTIONS AT ISSUE

Claims 1 through 5 and 7 through 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Notten. The Examiner's rejection is set forth on pages 3 through 7 of the Answer. Throughout the opinion we make

reference to the Brief (dated October 24, 2005), and the Answer (dated January 26, 2006) for the respective details thereof.

ISSUES

Appellants contend that the Examiner's rejection of claims 1 through 5 and 7 through 12 under 35 U.S.C. § 103(a) is in error. Appellants argue on pages 7 and 12 of the Brief that Notten fails to teach a customer (a person) inputting requirements for the CSD as claimed. Appellants assert that Notten fails to teach a design output or anything with regard to the models being hidden from the customers. Further, Appellants assert, on pages 13 and 14 of the Brief, that the Examiner's findings are based upon hindsight reasoning. Finally, on page 15 of the Brief, Appellants assert that the modifications proposed by the Examiner's rejection would change the principal operation of Notten's device.

The Examiner contends that the rejection of claims 1 through 5 and 7 through 12 under 35 U.S.C. § 103(a) is proper. The Examiner finds Notten teaches that inputs from a user (which the Examiner considers to meet the limitation of a customer) generate a design based upon the inputted data. See pages 7 through 10 of the Answer.

Appellants' contentions raise one issue for us to decide, whether Notten renders obvious a method of designing a CSD where a customer inputs at least one of the claimed CSD requirements into a model, which is hidden from the customer, and a design is generated by the model.

FINDINGS OF FACT

Notten teaches a battery monitoring method which measures parameters from the battery. The method selects and uses a model to simulate battery operation and uses the simulation to determine a characteristic of the battery. See column 1, lines 1 through 31. Notten also teaches that the monitoring device may be used in the design of batteries.¹ See column 1, lines 33 through 35 and column 25, lines 17 through 20. In using the monitoring device to design a battery, Notten teaches that a user inputs criteria concerning operating conditions of the device in which the battery will be used. See column 25, lines 20 through 31. One example of the criteria which the design must meet is whether “the supplied current is sufficient for a given duration of standby power consumption and full power consumption”, i.e., a rate of discharge capability. See column 25, lines 44 through 46. Further, Notten teaches that the method uses several models to simulate battery operation. See column 10, lines 27 through 37 (teaching that different models are used for different battery materials) and column 25, line 53 through column 26, line 4 (teaching that different material types are considered in the iterative calculations to design the battery). The simulations are run iteratively until the simulation results in a battery design

¹ Appellants’ arguments in the Brief do not appear to address this embodiment of Notten. In an earlier filed Reply Brief, dated June 20, 2005, submitted prior to remand of the appeal, Appellants acknowledge this teaching, but state on page 8, “Notten merely refers to producing a battery

that produces the criteria input by the user. The design is then used to produce a battery. See column 25, lines 35 through 38 and 46 through 48. Notten is silent as to whether the user inputting the criteria for the battery is made aware of the models being used.

The Examiner has taken Official notice that it is well known that “proprietary information/parameters related to the specifics of the software/models are kept confidential from customers.” See page 4 of the Answer. Appellants’ arguments on page 13 of the Brief, which discuss the facts noticed by the Examiner, do not contest the facts. See page 13 of the Brief. Thus, in the absence of evidence and arguments to the contrary, we find that at the time of the invention it was known to keep specific details of software models from customers.

PRINCIPLES OF LAW

Office personnel must rely on Appellants’ disclosure to properly determine the meaning of the terms used in the claims. *Markman v. Westview Instruments, Inc.*, 52 F3d 967, 980, 34 USPQ2d 1321, 1330 (Fed. Cir. 1995). “[I]nterpreting what is *meant* by a word *in* a claim ‘is not to be confused with adding an extraneous limitation appearing in the specification, which is improper.’” (emphasis original) *In re Cruciferous Sprout Litigation*, 301 F.3d 1343, 1348, 64 USPQ2d 1202, 1205, (Fed. Cir. 2002) (citing *Intervet America Inc v. Kee-Vet Laboratories Inc.*, 12 USPQ2d 1474, 1476 (Fed. Cir. 1989).

based upon output characteristics, and nothing substantive is really discussed with regard to design output.”

ANALYSIS

Independent claim 1 recites: “providing more than one model of a charge storage device,” wherein the model converts at least one of a customer inputted requirement, from a list of requirements, into the CSD design. The list of requirements includes “rate capacity.” Claim 1 additionally recites an interface which passes the requirements from the customer to the model, where the interface hides the model. Further, claim 1 recites that the function of the model is to generate a design.

The term “rate capability” as used in the claim is not defined in Appellants’ specification. We hold that one skilled in the art would consider this to be data relating to the batteries’ capability to provide current over a given time period at a given rate, e.g., a discharge rate or the amp/hour rating of the battery.

We consider the scope of the term “customer,” in the context of the claim, as an entity that inputs the requirements for the CSD device which the model uses to generate the CSD design. While we consider the scope of the term customer to include a person, we decline to limit the meaning of the term to be a person only, as to do so would be inconsistent with Appellants’ specification. Page 2 of Appellants’ specification discusses a customer as being a corporation.

Further, we note that claim 1 recites no limitation as to who the models are hidden from or how they are hidden. Thus, we consider the scope of the claim to be broad, and includes hiding the model by not displaying the model.

As discussed *supra*, we find that Notten teaches a system which makes use of models to simulate operation of a battery, and can be used in the design of a battery. While Notten does not refer to the user of the system as a customer, we nonetheless find that Notten teaches an entity that inputs requirements necessary for the proper operation of the device to be powered by the battery. These requirements include power required from the battery, e.g. rate capability. Further, given Notten's silence concerning displaying the model to the user, and the finding that it is well known to hide proprietary information from customers, we hold that the skilled artisan would recognize the desirability of hiding the model from the user in Notten's system. Thus, we find ample evidence of record to support the Examiner's determination that Notten renders obvious a method of designing a CSD where a customer inputs at least one of the claimed CSD requirements into a model, which is hidden from the customer, and a design is generated by the model. Accordingly, we find for the Examiner on this issue.

CONCLUSION

We do not consider the Examiner's rejection of claims 1 through 5 and 7 through 12 under 35 U.S.C. § 103(a) to be erroneous, as we agree with the Examiner that Notten renders obvious a method of designing a CSD where a customer inputs at least one of the claimed CSD requirements into a model which is hidden from the customer, and a design is generated by the model.

ORDER

For the forgoing reasons, we will sustain the Examiner's rejection of claims 1 through 5, and 7 through 12 under 35 U.S.C. § 103(a).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv).

AFFIRMED



ANITA PELLMAN GROSS
Administrative Patent Judge



STUART S. LEVY
Administrative Patent Judge


ROBERT E. NAPPI

Administrative Patent Judge

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